Executive Agent Concept of Operations for Medical Materiel

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Contents

EXECUTIVE SUMMARY

This concept of operations (CONOPS) provides the framework for operating the Class VIII (medical materiel) supply chain with the Defense Logistics Agency (DLA) as the executive agent (EA).[1] The CONOPS applies to medical materiel referred to as Class VIIIA, which includes pharmaceutical, medical-surgical, dental, medical laboratory, radiology, and optometry supplies as well as preventive medicine items and medical equipment. These various supplies and equipment constitute the items supported in the "medical supply chain." This CONOPS does not pertain to blood or blood products normally designated as Class VIIIB.

Guidance and information contained in the following shaped the approach and objectives for this CONOPS:

- Memorandum, from the Office of the Under Secretary of Defense (Logistics and Materiel Readiness), Subject, *Executive Agent Directive for Medical Materiel*, 14 August 2002
- Ideas and concepts expressed in DoD's Future Logistics Enterprise (FLE)
- Reports and exercises reflecting Combatant Command concerns about medical materiel readiness.
- Analyses of Class VIII support requirements for the current global war on terrorism - Operation ENDURING FREEDOM

EA provides an opportunity to build on the strengths and successes of the current medical supply chain. Most importantly, EA is the best option to target and improve the processes and relationships that affect support to the Combatant Commands. EA for medical materiel is expected to achieve the following:

- **Establish DLA as a single DoD point of contact to orchestrate end-to-end medical supply chain support for the Combatant Commanders.**

  The operational relationships and the enterprise information architecture necessary for an effective supply chain, from planning to execution, have the highest potential for success with an EA designation.

- **Strengthen the collaboration among DLA, Combatant Commands, and Services in planning the provision and distribution of Class VIII sustainment materiel. Execute support through formal agreements that include delegation of authority to theater and functional lead agents (LAs) for provision of support to all Services.**

[1] In this report, EA stands for both "Executive Agent" and "Executive Agency."

DLA will have clear responsibility to provide surge and sustainment materiel support for the Combatant Commands. This includes managing the movement of materiel, in concert with the United States Transportation Command (USTRANSCOM), to overseas theaters of operation or in support of homeland defense. DLA will delegate authority to theater LAs to receive, manage, and distribute materiel in accordance with command and component planning for support of tactical operations. The LA concept provides the Class VIII supply chain construct for future single integrated medical logistics manager (SIMLM) doctrine.

- **Improve coordination of medical materiel requirements—including implementation of a single management tool to compute requirements for surge and sustainment, and award performance agreements with commercial partners that source requirements—raising the level of contingency and wartime support to that of effective peacetime support.**

  DLA as the EA creates the best option to match military requirements with commercial capability. An EA recasts the complex medical materiel requirements process by defining a key focal point for surge and sustainment materiel. Responsibility for these requirements, the tools used to compute requirements, and the sourcing of materiel to meet requirements shifts to the clearly designated EA.

- **Improve application of resources for control and availability of medical materiel to support the Services and Combatant Commands surge and sustainment requirements.**

  DLA as the EA can establish formal partnerships with its LAs that integrate the capacity of DLA strategic acquisition programs with the operational, medical logistics capability of Service component LAs. For example, DLA can apply its Defense Worldwide Working Capital Fund (DWWCF) at LA activities to rapidly elevate the level of materiel readiness to support current or expected operations. This EA action eliminates confusion over roles and financial responsibility to put resupply medical materiel in place and improves application of critical resources. Also, the EA can consolidate investment in surge and sustainment materiel by crafting a single program objective memorandum (POM) submission for contingency and wartime requirements.

- **Delineate roles, responsibilities, and authorities among the vital organizations that constitute the supply chain, creating operational relationships that effectively support contingency and wartime operations.**

DLA as the EA provides leadership to obtain the linkages and cohesion among supply chain elements imperative to achieve a singular focus—support to Combatant Command medical readiness.

The framework created by the CONOPS puts the EA in place to close the supply chain "gaps" that hinder medical readiness in the Combatant Commands and to accomplish the following:

- Solidify operational relationships that constitute the supply chain.
- Clarify requirements and match them to commercial capability.
- Manage movement of medical materiel from commercial source to theater and within theater to support tactical situations.
- Increase the availability of medical materiel to support current and future operations.

WHY EXECUTIVE AGENCY? WHY NOW?

OSD's Tasking

On 14 August 2002, the Deputy Under Secretary of Defense for Logistics and Materiel Readiness (L&MR) tasked the Director, DLA, with preparing a draft *Executive Agent Directive for Medical Materiel* and an associated CONOPS. The tasking contained the following guidance:

- The CONOPS will examine two alternatives:
  - Alternative 1 will document the "as-is" support.
  - Alternative 2 will examine DLA as the EA for the commodity.
- The underlying premise of the analysis is to ensure the EA can provide "uninterrupted, efficient and effective logistical support."
- The following elements should be addressed in the CONOPS:
  - "End-to-end (source to consumer) distribution with a single point of contact to orchestrate the supply chain,
  - Examination of distribution roles and responsibilities in tactical situations,
  - The same process in peacetime, contingency, and war; CONUS and OCONUS,
  - Coordinated acquisition and employment of DoD items based on common usage (two or more Services) leading to economical and effective application of resources,
  - Specific roles, responsibilities, and authorities of the EA, supported customers, and other stakeholders."

The L&MR tasking requires coordination with the military Services and Combatant Commanders in preparation of the CONOPS and establishes the expectation for improved warfighter support.

Future Logistics Enterprise

In recent months, OSD has unveiled its vision for the future of logistics support to the wide spectrum of military contingencies and operations. The *Future Logistics Enterprise* (FLE) contains a vision that can be summarized as "meeting war-

fighter requirements around the clock, around the globe…through enterprise integration and end-to-end customer service."

The FLE focuses in part on EA, targeting DoD's management and provision of supply commodities, or "secondary items," as distinguished from provision of major end items. In developing FLE, the analysis of current commodity management revealed several major concerns, including

- Multiple, overlapping assignments for provision of supplies
- Limited information on true requirements
- Complicated resourcing
- Non-responsiveness to Combatant Commands' needs

In response to these concerns, FLE envisions significant changes in supply support to Combatant Commands, centered on three key concepts:

- A single, definitive EA structure
- End-to-end accountability
- Collaborative supply chain integration initiatives

The implementation of these concepts must help warfighters "receive what they want when they want it…throughout the system, materiel flows from end-to-end with reduced handoffs aided by end-to-end process and information support."

Class VIII Commodity

The DoD strategy and business process for providing Class VIII supplies to the Military Health System (MHS) have transformed over the past decade. Commercially based programs, such as medical prime vendor (PV), have supplanted DoD depots as the primary source of medical supplies. Information technologies have enabled expansion of electronic commerce and data accessibility, and the military medical Services have increased formal and informal collaboration in their management of the Class VIII commodity.

These commercially based strategies have resulted in enormous savings to DoD by reducing peacetime inventories and logistics infrastructure, but they have not been fully applied to the Class VIII supply chain to fulfill the requirements of Combatant Commanders. Overarching authority and accountability for the end-to-end management of Class VIII materiel - from the commercial source to the end user inside a theater of operations - is lacking.

The Class VIII commodity has several attributes that mandate its intense management within the overall DoD logistics system. The most significant is the absolute criticality of its availability when and where required to enable the MHS to provide the highest possible standard of care. It is also characterized by requirements driven by the specific demands of healthcare, which are often difficult to predict and require a high degree of operational flexibility and agility.

This flexibility is challenged by the commercial nature of the Class VIII commodity, which (for other than pharmaceuticals) lacks any universally recognized standard for product identification, and is affected by rapid changes in technology and clinical practice, as well as by changes in the market as companies respond to competitive market conditions. Class VIII management is also a major cost factor for the MHS, under tremendous pressure to optimize business practices to minimize supply chain costs, particularly in the Defense Health Program (DHP).

The Class VIII supply chain must respond to the unique demands of the Class VIII commodity in both institutional ("peacetime") and operational settings. Business processes that are optimized to contain supply chain costs must be able to quickly transition to meet the demands of operational forces. Acquisition and distribution strategies must be in place to provide sufficient materiel at the right time and place. The supply chain must meet the demands of the earliest-deploying units and provide continuous responsive support to units that are far forward in the joint area of responsibility (AOR). The supply chain must fulfill the following requirements for medical materiel support:

- Medical materiel is a fundamental enabler of Force Health Protection. Responsiveness is imperative to achieve preventive, emergency, or sustaining medical care.

- Medical materiel support must be adaptable to the unique healthcare missions involving care on land, at sea, and in the aeromedical evacuation chain. These diverse missions require varying configurations for medical units and widely dispersed operational elements, all of which must be supported by a supply chain linked to commercial sources.

- Medical materiel's clinical prerequisites and specifications must be met. Clinicians prescribe the right item to meet the medical or healthcare task or condition. Requirements vary on the basis of the type of healthcare mission, ranging from combat casualty care to humanitarian assistance. Specific item requirements frequently change as a result of state-of-the-art clinical practices and dynamic product change in the medical materiel industry.

- Medical materiel quality control is paramount at all times. Physical characteristics and properties—potency dating, refrigeration, temperature con-

trol, hazardous materiel considerations, and physical security for controlled substances—are inherent to medical materiel.

As a result of these objectives and requirements, today's Class VIII supply chain has the following characteristics:

- Optimized for peacetime efficiency and cost avoidance
- Commercially based, with little materiel held in DoD operating inventories
- Decentralized, with relatively little medical materiel passing through the DLA distribution infrastructure
- Dependent upon nonstandard, commercial product identification numbers
- Less-than-optimally standardized materiel requirements across the Services
- Fragmented, with separate Services' concepts for the support of operational forces, particularly for sustainment of early-deploying medical units
- Dependent on in-theater distribution centers to support OCONUS institutional and operational customers
- Dependent upon automation and communications capabilities to manage and communicate line item sustainment requirements
- Dependent on strategic prepositioning and sustainment support in early phases of operations or rapid reach logistics support in early phases of contingency operations
- Reliant on reach logistics support when in-theater or prepositioned materiel is not available
- Dependent on air movement of materiel from commercial sources to areas of operation.

Combatant Commander Concerns

The development of today's Class VIII system, while noteworthy in many respects, has nevertheless led to a state of "divided effectiveness":

- Commercially based, everyday support to MHS fixed healthcare activities is efficient, responsive, and confident. Operational objectives for this sector, reflected in next-business-day delivery of supplies and low operating

inventories, have largely been met. Economic issues—such as standardization of materiel, further reduction of credit card and local purchase transactions, and reduction of overhead costs—dominate the current focus for support to fixed healthcare facilities.

- Commercially based support of contingency operations and wartime requirements has not reached the same level of implementation and performance. Combatant Commanders, through their respective command surgeons, have repeatedly expressed doubts about Class VIII preparedness and responsiveness. CONUS-based commanders—who must rely on commercial sources for rapid infusion of materiel to fill unit sets and prepare medical units for deployment—express similar concerns.

The Combatant Commanders' concerns surfaced in 1995 and persist to date, as documented in several reports, analyses, and forums:

- *Joint Monthly Readiness Review (JMRR).* The United States Pacific Command (USPACOM) submitted JMRR Issue 4030 in 1995, and it is now closed. The issue detailed concern about Class VIII surge and sustainment. Other Combatant Commands joined the issue, all citing uncertainty about the capability of medical materiel PVs to meet wartime requirements. This issue led to the Joint Staff directed Joint Warfighting Capabilities Assessment for Medical Materiel under the supervision of the J-4's Health Services Support Division.

- *Joint Warfighting Capabilities Assessment (JWCA).* The JWCA for medical materiel focused on commercial capability to support Combatant Command requirements. Specifically, the analysis examined the ability of commercial sources to meet surge and sustainment requirements. The analysis resulted in the following findings:

  - Commercial materiel is available to meet most wartime requirements.

  - DoD has inadequate processes to model and identify common Class VIII requirements across the full range of operational scenarios, including medical response to humanitarian assistance and nation-building as well as medical response to weapons of mass destruction.

  - DoD practices for acquiring, managing, and (especially) prioritizing the flow of materiel from commercial sources to meet contingency and wartime requirements are not sufficient, resulting in less capability than is actually possible.

- *Focused Logistics Wargame (FLOW).* Two FLOW exercises conducted in 1999 and 2001 revealed three important issues:

- The Class VIII requirements determination process does not effectively reflect Combatant Command perspectives.
- Combatant Command medical logistics and operations planners have no satisfactory Class VIII requirements computation tool.
- Class VIII supply chain gaps hinder linkages of key organizations, determination of requirements, effective transportation and distribution of materiel, and availability of adequate materiel in theater to support operations.

The FLOW exercises also revealed senior officer concern about the need for a single point of contact for the supply chain. In the 2001 wargame, EA was identified as the first priority for addressing Combatant Command concerns across several supply commodities, Class VIII included.

- *Combat Support Agency Review Team (CSART).* CSART reviews in 2002 confirmed that Combatant Command concerns about Class VIII support have not diminished. They show continued low confidence in the capability of a commercially based supply chain to meet contingency and wartime requirements. Strikingly, the end-to-end connectivity from commercial source to tactical medical unit has not been clarified to the satisfaction of the commands. Several commands are uncertain about the structure and operational capability of the supply chain.

FLE Response

DoD's vision for logistics support and Combatant Command concerns about the medical supply chain are at a critical juncture. The lack of a single agency to address Combatant Command concerns and to orchestrate and resource solutions undermines progress in achieving the DoD vision.

The designation of an EA can provide an overall architecture and accountability to address these concerns and establish an FLE that takes advantage of 21st century business processes and information technology. In effect, the Class VIII supply chain can test the concepts contained in FLE. The time for EA is *now*:

- Combatant Command's confidence in the Class VIII supply chain's ability to meet mission requirements must be raised rapidly.
- DoD must have a medical materiel focal point to engage new demands for interagency coordination among federal healthcare organizations. Civil agencies are rapidly establishing contingency materiel programs to address emergency medical response scenarios for homeland security. The Departments of Health and Human Services (including the Centers for Disease Prevention and Control) and Veterans Affairs have contingency

materiel programs that rely on many of the same critical items and sources that DoD uses in its support of military operations. An ad hoc Federal Medical Materiel Coordinating Group involving these organizations has been established and is attempting to coordinate requirements for critical items and develop mutual support initiatives. DLA as the EA must be a key participant in this coordination process.

- EA status is equally important in the interagency coordination that affects everyday federal healthcare programs. A primary example is the coordination between the MHS and Department of Veterans Affairs. In recent years, important memorandums of agreement have led to new agency partnerships for pharmaceutical pricing from suppliers and joint procurement actions for high cost items. The EA must represent DoD programs and interests to its federal and commercial partners with clear, coordinated positions, eliminating any fragmentation in approach that may confuse the interests of the MHS in these relationships.

- Information systems and technologies that support DoD logistics are entering a new era as enterprise resource planning (ERP) capability is developed and installed. The future design of the Class VIII supply chain must carefully integrate the best possible application of these information capabilities. An EA must represent medical requirements in the logistics enterprise architecture. Lack of effective representation risks loss of opportunities during design or employment of new systems applications.

CLASS VIII SUPPLY CHAIN STRATEGY

The Class VIII supply chain is in place to support two deliberately integrated missions of the MHS:

- Peacetime healthcare support provided by DoD's institutional MHS medical treatment facilities (MTFs)

- Contingency and wartime medical support provided by tactical medical units and elements in each of the military Services.

These two missions continuously interact, and both rely dramatically on commercially based support, but each has unique supply chain challenges. Commercial sources of supply constitute a common denominator, which shapes supply chain support for the full range of the MHS operations. DLA's most distinctive responsibility, in both the "as-is" and "to-be" supply chain scenarios, is to put this commercial support in place, ensuring that it fulfills the requirements of both mission areas. The following factors, which affect the supply chain, represent the interrelationship between the two mission areas and their commercially based support:

- The same commercial sources, including medical materiel distributors (PVs) and manufacturers, support both mission areas. Peacetime sales with commercial manufacturers and distributors provide the basis for contractual business relationships with industry for contingency and wartime medical support and give DoD training and experience with these commercially based processes.

- Support to everyday operations in fixed MTFs creates the relationship between DoD and its commercial partners. This relationship enables depth of support to tactical medical elements in contingency operations. DLA's acquisition programs and tools that support the institutional MHS form a contractual basis to support Service requirements for contingency materiel.

- Support to fixed MTFs builds essential depth in the commercial supply chain supporting DoD.

- Support to fixed MTFs produces the array of everyday items likely to be required in contingency support operations. The currency of medical materiel to support combat casualty care is derived from the items that support the MHS major medical centers and community hospitals.

- Operational relationships crafted in peacetime carry over to contingency planning. Corporate and personal relationships provide the baseline of knowledge to create effective contingency materiel agreements.

- Everyday commercial support forms the basis for business and market intelligence, which shapes the course of contingency supply chain support. Knowledge of vendor capabilities and performance translates to specifications in contingency contracts and performance agreements.

- Fixed MTFs that are stock funded or specifically assigned reach logistics responsibilities may provide a first line of support to contingency operations. This first line is key to supporting early-deploying units, that is, filling unit shortages and providing reach logistics support to specified operations until the theater LA is fully operational.

The essence of supporting military requirements with commercial capability is building supply chains that can perform in wartime as they operate in peacetime. The Class VIII supply chain achieves this capability through continuous use in everyday support and from this experience, the development of specific measures to transition to contingency support.

Although the two distinct missions have much in common, support to fixed MTFs will stay relatively the same in as-is and to-be strategies. The following features characterize the Class VIII supply chain for these healthcare operations:

- It is almost entirely commercially based.
- DLA/Defense Supply Center Philadelphia (DSCP) contracts put PVs in place for regional pharmaceutical and medical surgical supply support.
- Activities electronically process supply transactions directly to the PV; financial management and demand information transactions are simultaneously routed to DSCP.
- PVs provide next-business-day delivery to the customer.
- Materiel not available from the PV is acquired directly from the manufacturer or distributor via web-based transactions (DSCP's Electronic Catalog), credit card purchase, local purchase action through a local contracting office, or, seldom, by direct-vendor-delivery transaction through DSCP. In all cases, materiel is shipped directly from the source to the activity.
- Overseas fixed MTFs use the same types of sources, including direct from PVs, but may rely on theater distribution centers—U.S. Army Medical Materiel Center Europe, 16th Medical Logistics Battalion in Korea, and others—as intermediate supply and distribution support operations.

Support to DoD's fixed MTFs is frequently cited as a model of applying commercial capability to military requirements. But success in one readiness dimension has not yielded the same results in the second one. Combatant Command concerns are not with the supply chain capability for everyday support of fixed healthcare operations, but with the ready availability of Class VIII materiel for tactical medical units engaged in a wide range of military contingencies and wartime situations. *This CONOPS, therefore, primarily focuses on the mission of contingency and wartime support. While a proposed EA would reach across both dimensions, the analysis of supply chain structure and strategy centers on support to Combatant Commands preparing for and engaging in military operations and homeland defense.*

As-Is Support

The as-is Class VIII supply chain has the following features:

- Services outfit medical units with required medical materiel that is on-hand or provided by the contingency medical materiel program upon deployment.
- Services design separate and distinct Class VIII supply chain strategies, consistent with their missions and operational CONOPS, to support their mission requirements for early-entry forces (and ships afloat).

- Joint Tactics, Techniques, and Procedures (JTTP) 4-02.1 provides concepts for Class VIII support to joint forces in Combatant Commands through SIMLM; however, Services are responsible for Class VIII sustainment until transition to SIMLM at D+60. The joint medical logistics community has deemed the JTTP outdated.

- Services recognize the need for a theater SIMLM to support earliest entry forces, but no Service is resourced to fully provide sustainment inventory in the theater to meet Combatant Commander requirements for early-entry forces (through D+60).

- Within specific AORs (Europe and Korea), a SIMLM capability is exercised day to day, but for most of the Combatant Commanders, the SIMLM is developed ad hoc and then has to potentially work with four distinct Service supply chains to be effective. Europe and Korea SIMLM inventories and requirements support peacetime operations but are not matched or capable of supporting a wide range of contingency requirements.

- Individual Services are responsible for programming, acquiring, and managing in-theater sustainment inventories. Each Service's medical logistics agency computes and manages requirements. Service medical logistics agencies define requirements for contingency materiel in the DSCP-managed Medical Contingency File (MCF). Commercially based contingency materiel is both Service- and DLA-owned in various programs, which complicates the prioritization and execution of surge and sustainment support to deploying and theater units.

- Tactical level units place Class VIII orders through a single medical logistics support unit or element, which may be a theater distribution center or a deployable medical logistics unit. Service medical logistics elements or the SIMLM requisitions resupply materiel directly from commercial sources or from DSCP as a direct-vendor-delivery transaction.

- Service operational units place Class VIII requisitions using Service legacy medical logistics information management systems, which are in the process of migrating to the logistics application of the Theater Medical Information program (TMIP). The TMIP medical logistics application is DMLSS (Defense Medical Logistics Standard Support).

- DLA is responsible for coordinating strategic transportation management and physical distribution of materiel, which rely upon the Defense Transportation System (DTS), from commercial source to theater distribution center (SIMLM) or to tactical medical logistics unit.

- SIMLM or the supporting tactical medical logistics unit is responsible for coordinating tactical, intra-theater transportation and distribution of Class

VIII materiel, which rely upon the nonmedical distribution capabilities of the Combatant Commander.

- Service-specific supply chain terms and definitions are used.

The as-is strategy works—with considerable and constant intervention by numerous, highly committed medical logistics professionals—but is often characterized by the following:

- Uncertainty whether commercial sources and strategic distribution can provide materiel sufficient to meet requirements of early-deploying forces
- Low commonality of requirements for sustainment materiel among all Services
- Lack of standard product identification, which makes requirements identification and materiel management complex
- Inability to implement joint Class VIII support at the theater level in time to support earliest-deploying forces
- Inability to effectively prioritize the dynamic and competing demands among the Services.

To-Be Support

The to-be strategy has the following features:

- Services outfit and deploy medical units with required medical materiel that is operationally capable upon arrival. (This is a Title X responsibility, unaffected by this CONOPS.)
- Services continue to manage theater storage and distribution of prepositioned unit assets to initially outfit medical elements.
- Class VIII requirements continue to be clinically driven by the Services' accountability to provide highest quality healthcare in support of operational requirements anywhere in the world, from the first day of operations.
- The EA collaborates directly with Combatant Commands and develops a medical materiel support plan to meet the specific needs of each commander. The plan outlines an appropriate balance of on-hand and contingency-based inventories, synchronizes with the Combatant Commander's operation plans (OPLANs), and designates Service responsibilities for

Class VIII management and distribution, including in-theater or reach support to early-entry forces.

- The EA, in coordination with the Combatant Commander, delegates authority to manage theater Class VIII support to an LA. The theater LA is integrated with DLA systems and provides the operational and tactical capability to execute DLA contingency programs.

- The EA uses LAs and other theater capabilities to hold, manage, and distribute operational and contingency stocks, achieving the supply availability levels and customer wait-time prescribed by the Combatant Command.

- The EA provides resources and programs to meet the Combatant Commands' contingency requirements contained in the theater plan. The EA applies working capital funds and programmed resources to support surge and sustainment requirements.

- The EA delegates authority to the Joint Readiness Clinical Advisory Board (JRCAB) as the functional LA for item standardization in surge and sustainment contingency materiel requirements.

- The EA designates the Medical Logistics Proponent Subcommittee (MLPS) as a functional LA in accordance with their chartered authority to develop and integrate best business processes and automated system requirements.

- The EA transitions the myriad of commercially based contingency materiel contracts to performance agreements to ensure full coverage of contingency materiel support.

- The EA orchestrates the movement of materiel from commercial and government sources to the theater LA. The EA ensures ITV of materiel in the strategic distribution system. The EA uses CONUS-based and overseas suppliers to achieve readiness levels.

- The EA applies best available item strategy to meet Combatant Command and Service requirements. Commercial availability, and functional LA (JRCAB) review determines best available items.

- The EA creates a mutual incentive framework for Service selection of initial outfitting materiel—items matching surge and sustainment stocks have best availability.

- The EA maintains terms and definitions for common supply chain language across Combatant Commands, Services, and supporting agencies.

The to-be strategy incorporates the following FLE concepts:

- A definitive EA structure
- End-to-end accountability
- Collaborative supply chain integration initiatives.

Essential Components

Building the to-be supply chain strategy and its CONOPS requires analysis of the supply chain's essential components. The following essential components of the Class VIII supply chain form the capability to support the Combatant Command:

- Operational relationships
- Requirements
- Systems and information architecture
- Distribution
- Financial structure
- Program management
- Readiness assessment

OPERATIONAL RELATIONSHIPS

Many commercial, DoD, and other governmental activities perform functions related to the Class VIII supply chain:

- Service medical logistics agencies
- DLA and its supply and distribution centers
- Commercial PVs and other industry partners
- Army theater distribution centers
- Service deployable medical logistics units
- Service installation-level retail Class VIII supply activities
- The Service agencies and activities that develop warfighting concepts and doctrine
- Organizations chartered to perform enabling functions, such as JRCAB and the program managers for DMLSS and TMIP

Key points in today's relationships and objectives in a to-be model are as follows:

As Is	To Be
DLA has limited capability and no formal relationship to integrate its strategic Class VIII acquisition programs with the Services' intra-theater Class VIII distribution capabilities.	DLA is linked through CONOPS and formal agreements with Service-level organizations or units to establish a fully integrated supply chain for end-to-end distribution.
Organizations function with relative independence.	The EA leads the planning, management, and integration of the Class VIII supply chain and its operations.
Combatant Commanders designate the lead Service for SIMLM without collaboration with DLA or development of specific responsibilities for Class VIII supply chain organizations.	The EA, in concert with Combatant Commands and the Services, delegates authority to theater LAs through formal partnerships to provide Class VIII support to each Combatant Commander.
Key functional activities (MLPS, JRCAB)	The EA, in coordination with ASD(HA),

are not formally integrated into an overall joint CONOPS for Class VIII management.	designates JRCAB and MLPS as functional Las in accordance with their chartered authority.
SIMLM support in early phases of an operation is uncertain. Current doctrine expects support at D+60.	Early theater sustainment support is defined by Combatant Commander plans and is provided by the EA and its theater LAs through formal agreements.
No single point of contact collaborates with the federal agencies.	The EA assumes overall responsibility for interagency coordination.

As-Is Relationships

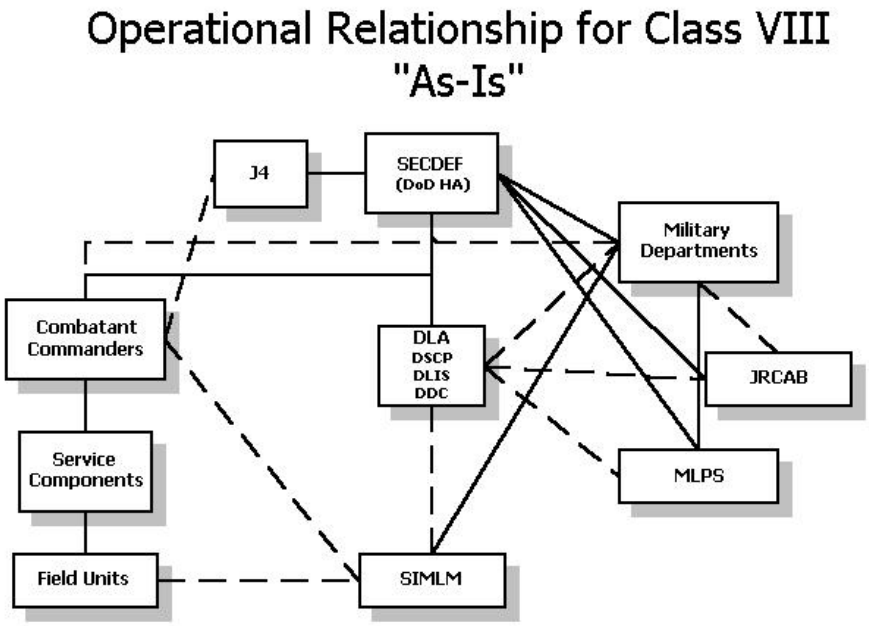
Accountability for DoD Class VIII logistics management is divided among DLA (wholesale level), the military Services (retail and operational level), and the Office of the Assistant Secretary of Defense for Health Affairs, OASD(HA). Key organizations work relatively independently as dictated by DLA, Service, and OASD(HA) policy and guidance. In peacetime, the organizational structure functions to meet its primary mission, getting supplies to the end user at the lowest delivered cost.

Working with commercial vendors, each Service executes its Title X responsibilities to ensure that its MTFs receive materiel in a timely manner and that operational units are deployed with necessary materiel to be fully mission capable. Because the Services and individual MTFs independently select products, however, economies of scale may be lost and partnership opportunities with the other federal agencies diminished. Two organizations chartered by the OASD(HA), the MLPS and JRCAB, are addressing issues of best business practices and standardization, respectively.

Service doctrine, mission, and CONOPS determine medical logistics support to operational forces, especially for early-deploying forces. Joint doctrine specifies Service and Combatant Command responsibilities, and although Joint Publication 4-01.2 includes an operational concept for joint medical logistics support through SIMLM, no doctrine or accountability establishes joint operations prior to D+60. This situation leaves the Services and their medical logistics agencies to craft independent concepts for operational support, particularly for early operations. Although some Combatant Commands have an operational SIMLM, no formal, documented CONOPS exists among DLA, Combatant Commanders, and Services for establishing uniform processes and specific responsibilities for Class VIII management.

With the Services operating separate medical logistics supply chain and information systems in tactical environments, Combatant Commanders have difficulty attaining visibility of supplies, prioritizing, directing cross-leveling, or accurately accounting for Class VIII materiel. The Service components play a vital role in theater contingency support, yet interaction among these commands not fully sufficient.

Strategically, DoD does not have a component with sole responsibility for coordinating medical materiel issues with the other federal agencies. This applies to both peacetime healthcare programs and contingency materiel planning related to homeland security. This lack of coordination could result in confusion, lost economies of scale, and less-than-optimal partnering effectiveness.



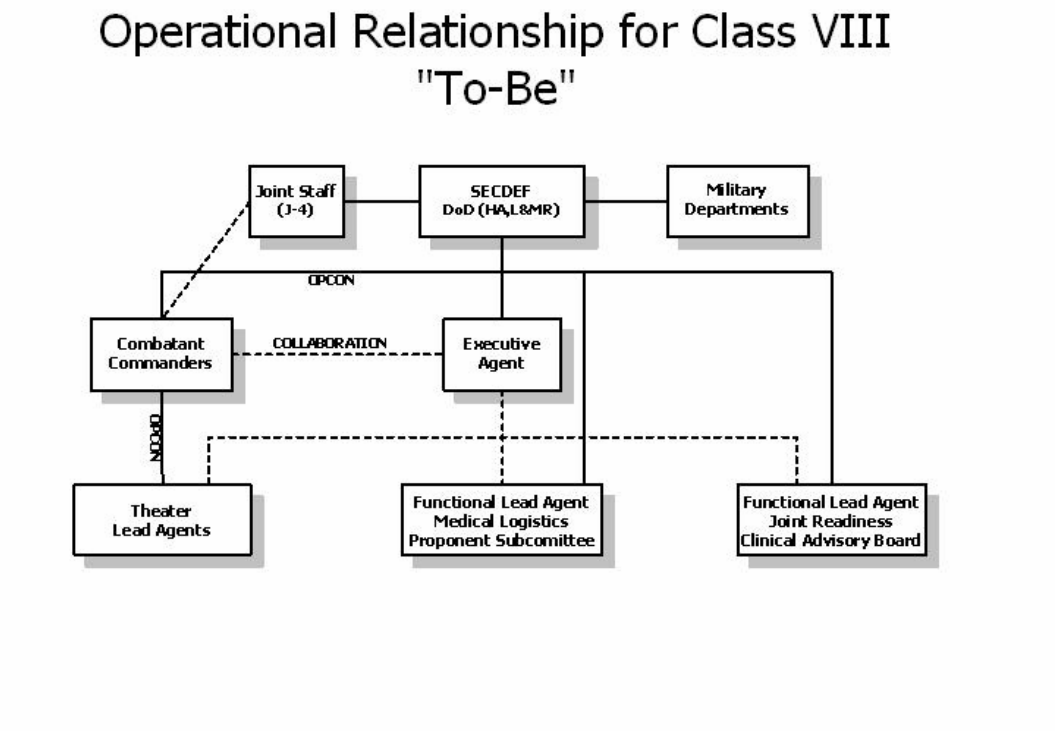
To-Be Relationships

Under a to-be organization, the EA's formal accountabilities and lines of communication extend among organizations of DLA, Combatant Commands, and Services for the planning and execution of supply chain activities. The primary characteristic of the to-be model is that the EA is responsible for establishing the operational concepts and Service partnerships to ensure time-definite availability of Class VIII surge and sustainment supplies from the source of supply to the customer inside the theater.

The EA delegates theater LAs the proper authority to accomplish materiel management and distribution of Class VIII to support each Combatant Commander (figure 2). Theater LAs are selected on the basis of their capability and location and designated in AORs where Combatant Commands have a significant Class

VIII mission. Consistent with the Goldwater-Nichols Act, these LAs are primarily responsive to the Combatant Commander *but will be functionally and financially integrated with strategic and operational level capabilities of DLA.* Theater LAs work closely with DLA and Service components to collaborate, plan, and execute the Class VIII mission.

Functional LAs advise the EA within their area of expertise. The MLPS serves as a functional LA for integration of EA policy with Service medical logistics policy, business process improvements, and implementation of a systems architecture. The JRCAB is delegated authority as the functional LA responsible for standardization of equipment and supplies. In this capacity, JRCAB must match combat developer requirements with identification of commercially available materiel. Under this EA concept, the MLPS and JRCAB have stronger, formal ties to DLA to improve the Class VIII system. These relationships are clearly delineated and consistent in both peacetime and at war.



REQUIREMENTS

Class VIII requirements determination and management identify materiel to meet initial outfitting, surge, and sustainment for end-user needs. A simple, straightforward model that produces medical materiel item requirements does not exist. Computation of quantity levels is equally difficult due to the variation and limited predictability of patient volume and care conditions. Item standardization is challenging in light of varying clinician expertise and opinion, product change, and variation in medical unit configuration.

Class VIII requirements are defined as the line item materiel needs of clinical personnel to accomplish their healthcare mission. In institutional MTFs, these requirements are normally demand based, identified by commercial product identification numbers, and selected by the clinicians that will use them. Class VIII requirements for operational forces are generally based upon components of Service-developed medical sets designed for specific missions and types of units and are identified by a national stock number (NSN) assigned by Defense Logistics Information Service (DLIS). The clinicians that use the materiel in operational units are usually not those involved in selecting the products contained in the medical sets.

Key points in the current as-is requirements process and the objectives in the to-be requirements process are as follows:

As Is	To Be
Services independently select and standardize individual products for use in building medical equipment sets.	Services independently select products for medical sets, from a new medical contingency file (MCF) that contains the best available products to meet wartime requirements. Products not included in the MCF remain a Service responsibility to provide.
Not all Class VIII requirements are cross-referenced to commercial product numbers within each supporting supply DMLSS/TMIP database.	The EA provides an enterprise-wide data architecture shared by its LAs in performing Class VIII management and distribution.
Services are responsible for providing Class VIII materiel necessary to give each medical unit initial operating capability; number of unit days of supply varies with each Service.	Number of unit days of supply determined in collaboration between the Service, Combatant Command, and EA and factored in to the requirement for theater-level sustainment requirements.

Services independently compute and resource sustainment requirements to support Combatant Commander OPLANs.	Services compute sustainment requirements for their component commands and reflect them in MCF. The EA collaborates with Combatant Commander to establish optimum measures to resource, manage, and distribute medical materiel.
Services fund acquisition and maintenance of prepositioned unit sets and sustainment inventories.	Services continue to own and manage prepositioned unit sets. The EA owns prepositioned surge and sustainment materiel and resources commercially based contingency programs necessary to ensure its availability.
Combatant Commanders have relatively low confidence in capability of commercially based programs to respond to their requirements.	Combatant Commanders collaborate with the EA to develop specific plans to meet their OPLAN requirements, including designation of the theater LA.
No fully collaborative process prioritizes the distribution of materiel from commercial/CONUS sources and contingency programs among the Services or Combatant Commands.	The EA, in collaboration with theater LAs and Combatant Commands, prioritizes end-to-end support and distribution.
No common requirements computation and management tools exist.	The EA invests in and supports implementation of requirements computation and management tools for surge and sustainment.
Low commonality of item requirements across Services.	The EA manages process and tools to improve commonality. The EA identifies best available item for surge and sustainment. Commonality of products improves through the MCF.
JRCAB advises and assists.	JRCAB serves as LA for materiel standardization and for designation of products included in the MCF.
Low incentive for standardization exists.	Best available items create mutual incentives. Services apply these items in initial outfitting decisions. Availability of these items for surge and sustainment influences Services decision for initial outfitting.

Well-defined requirements form the basis of logistical support. Knowing the right items and amount of Class VIII materiel needed to satisfy the warfighter's mission requirements is the starting point in building an effective, efficient support structure. The objective of a well-coordinated requirements process is a systematic, patient-based means of estimating Class VIII materiel to support a wide variety of missions, force structures, and logistical capabilities.

As-Is Process

The process of identifying and standardizing medical materiel requirements for operational forces presents several challenges to management of the Class VIII supply chain:

- Lack of common item selection and identification among the Services, even for items that meet common requirements
- Imprecise requirements computation based upon reconstitution of medical sets rather than on modeling the treatment of mission-specific patient conditions
- An immense "universe" of materiel requirements for DLA to cross-reference to commercial product numbers and ensure acquisition tools are in place to ensure availability.

No financial or business process is in place to provide inventory for a deployable logistics unit in support of joint Service requirements. Determination of sustainment requirements for operational forces is usually computed by modeling the number and types of units to be employed and compiling the quantities of each supply NSN needed to replenish their medical sets for a given period. Each Service does these computations independently and passes them to DLA to assess commercial availability and to establish acquisition tools to meet the computed requirements. Prepositioning of Class VIII requirements for sustainment of Combatant Commanders' OPLANs is a Service responsibility and is generally limited by availability of resources. The lack of prepositioned Class VIII surge and sustainment materiel for early operations is a significant factor in Combatant Commander concerns about commercially based business strategies for this commodity.

When a Service does resource the prepositioning of materiel to meet theater sustainment requirements, access to this materiel is generally limited to support the Service that bought it.

DLA is responsible for ensuring that Service requirements are cross-referenced to the commercial products and ensuring that acquisition tools and programs are in place to assure availability in sufficient quantity to meet computed surge and sustainment requirements. It does not, however, have authority to direct or coordinate) the requirements determination process to promote efficiency or effectiveness.

The ASD(HA) tasks the JRCAB to standardize the materiel the Services use in their deployable medical units and to standardize common deployable medical platforms (level III and above). However, many view this joint standardization process as too slow and inflexible to meet the Services' needs, and they may chose not to adopt the recommendations of the JRCAB.

No common requirements computation and management tool exists. The only quad-Service approved modeling and requirements generator, the Medical Analysis Tool, computes Class VIII in the aggregate, providing requirements expressed in population-based pounds per man per day. However, what constitutes a pound is not specified. Prototype tools—such as "Blackjack" (a medical demand estimator that creates scenario-based, flexible supply calculations) and "XSB" (to improve sourcing of requirements)—provide the level of detail sought by logisticians but are research projects or new technologies and not yet fully developed, resourced, and approved for use.

Each Service is moving ahead in procuring medical sets and kits following guidance from their surgeons general, ASD(HA), and the strategic vision provided by the Joint Staff. Each is working toward sets that are small, light, and tailorable to the mission and have minimal footprint. The set configurations are not ideally standardized and do not achieve commonality at the item level, greatly increasing the complexity of initial outfitting and sustainment.

To-Be Model

Under a to-be scenario, DLA becomes the agency accountable to the Combatant Commanders to ensure the timely availability of Class VIII materiel necessary to meet OPLAN requirements, beginning with sustainment of earliest-deploying units. Services continue to develop and select medical supplies and equipment for their deployable platforms; however, items are selected from a "formulary" of materiel that has been catalogued and cross-referenced to commercial sources and listed in the MCF. This MCF has comprehensive cross-references to commercial products and is linked to business intelligence tools that assess market availability, contingency contract programs, and asset visibility of items consumed in CONUS and in-theater. The JRCAB is the functional LA for the standardization of materiel. The products contained in the MCF represent the "universe" of items the DLA is accountable to provide, and it is intensively managed to ensure its information is current and relevant.

DLA is responsible for processes and tools that define Class VIII surge and sustainment requirements. The EA programs for and invests in one quad-Service adopted automated tool for requirements generation. Operationally, the EA is responsible for coordinating with Combatant Commands (in collaboration with designated theater LAs), linking with other EAs of similar commodities,

collaborating with the combat and materiel developers, and programming and promoting contingency support.

To maximize efficiency, the EA is in a strategic position to

- Create mutual incentives centered on best available items to improve Service standardization
- Coordinate business intelligence
- Provide risk-based deferred procurement strategies
- Serve as a clearinghouse for essential item information
    - Integrate the data environment
    - Link equipment to supply items
    - Maintain vendor and item master files
    - Maintain “formularies” for medical and surgical products

Finally, management of the Class VIII system is improved by an EA that validates surge and sustainment supportability, provides an automated feedback loop to point out risks and lessons-learned from a central database, and develops a synchronized distribution and supply system.

SYSTEMS AND INFORMATION ARCHITECTURE

Effective end-to-end distribution requires a systems architecture that provides total asset visibility of Class VIII items, as well as functional and financial integration of supply activities at the strategic and operational levels. The commercial nature of Class VIII commodity management, which relies significantly upon programs that ensure quick availability of materiel directly from industry partners, requires a systems architecture that includes market intelligence and visibility of materiel available from commercially based contingency programs, and should include linkages with contingency programs managed by other federal agencies.

Key points in the current as-is architecture and the objectives in the to-be architecture are as follows:

As Is	To Be
MLPS provides joint collaboration and oversight of DMLSS functional requirements development.	The EA designates the MLPS as functional LA (within their chartered authority) for business process reengineering and development of integrated system functional requirements for supply chain operations.
Class VIII has a limited presence in DLA enterprise architecture.	The EA, with MLPS guidance, defines Class VIII functional requirements in DLA enterprise architecture.
DMLSS provides the functionality to manage Class VIII at the unit level in both the institutional (MTF) and operational environments with unique databases.	The EA provides an enterprise-wide vendor and product master file, creating common product identification and cross-reference to commercial sources.
Service-unique methods are used to build unit sets and assemblies	The EA supports the Services with a common data environment, systems integration capabilities, and modeling tools to improve medical materiel sets and assemblages

As-Is Process

Both DLA and the Services are in the process of migrating to new automated systems for Class VIII management. Although these systems will interface from the standpoint of transaction processing, they are designed for an operational concept that uses separate asset and catalog databases for each medical supply activity, both in the institutional (MTF) and operational environments.

The Services have begun their migration to DMLSS, which will ultimately replace all Service legacy medical logistics systems for medical supply, equipment, and facility management. The DMLSS application will be ported into the TMIP

operating system and database structure and included in the suite of DoD standard medical software that is common across all Services and operational environments. DLA is beginning the implementation of *Business Systems Modernization* (BSM), which is the enterprise resource planning (ERP) initiative. BSM will replace the wholesale-level materiel management system DLA supply centers use. The detailed functional requirements for Class VIII management within BSM have not been fully developed. This unfinished process provides an opportunity to identify and incorporate functionality that will support the accomplishment of EA for Class VIII management.

To-Be Model

Uniform and synchronized medical logistics data available across the entire Class VIII supply chain are key enablers for efficient and effective medical logistics support. The EA, through the MLPS as the functional LA, develops and coordinates the system's functional requirements to support the DoD Class VIII supply chain. The existing DMLSS program management structure is used to develop, acquire, and sustain DMLSS system requirements and coordinate the integration with emerging DLA-wide business system improvements.

As LA, MLPS works with the EA to improve Class VIII supply chain business processes. The MLPS supports development of system functional requirements for supply chain activities and provides guidance and direction in the formulation of the Class VIII enterprise architecture.

The EA provides a national database and integrated data environment for Class VIII supply chain management. The EA provides tools to Service combat and material developers with asset visibility from the commercial industry. This enables them to select the best available items to improve medical material sets and assemblages in near real time.

DISTRIBUTION

The movement of materiel—from commercial source or prepositioning location through intermediate distribution centers to tactical units—forms the physical distribution construct for the supply chain.

Key points in the as-is distribution system and the objectives in the to-be distribution system are as follows:

As Is	To Be
CONUS distribution is commercially based using PVs and other commercial industry partner capabilities.	Commercially based distribution for CONUS activities remains.
OCONUS Class VIII distribution centers receive materiel directly from commercial sources and distribute in-theater, supported by medical logistics units deployed into the theater capable of supporting all Services.	OCONUS Class VIII distribution centers or other elements are delegated LA authority for in-theater distribution.
Class VIII requisitions are submitted and managed point to point from customers to the supporting medical logistics activity.	Deployed customers submit requisitions through a theater LA to be routed to the distribution center or unit most appropriate to provide the materiel.
Service-based supply chains support tactical units until at least D+60.	The EA, in collaboration with the Combatant Commander, delegates authority to LAs to establish CONOPS and responsibilities for Class VIII distribution to all customers in advance of operations.
SIMLM responsibility is designated by the Combatant Commander without coordination with DLA or development of a formal CONOPS.	The LA is delegated authority by the EA, in collaboration with the Combatant Commander, and is supported by a formal CONOPS and memorandum of agreement to establish Class VIII management and distribution responsibilities.
Contingency materiel is Service owned and requires Service approval to redistribute per Combatant Command priorities.	The EA owns surge and sustainment materiel, and LAs distribute it as prescribed by Combatant Command priorities.

As-Is Process

Today's CONUS distribution system includes PVs and other commercial partners, CONUS installation medical supply activities, OCONUS Class VIII distribution centers, and deployable medical logistics units. The Class VIII commodity is commercially based, but no single commercial source exists for all Class VIII requirements. Medical logistics supply activities and units must contend with mul-

tiple sources and acquisition tools, and provide packing and marking when necessary to move medical materiel through strategic and tactical military distribution systems.

DLA establishes strategic acquisition programs, such as medical PV and electronic catalog (ECAT) for medical supplies and equipment, and provides some local purchase support through direct vendor delivery. For CONUS customers, deliveries are normally made FOB destination, directly from the commercial or depot source. For OCONUS customers, most Class VIII supplies are provided by theater distribution centers operated by the Army—United States Army Medical Materiel Center Europe (USAMMCE) and 16th Medical Logistics Battalion—to all Service customers within the supported Combatant Command.

Most Service inventory levels held in DLA or Service distribution activities are demand-based in response to routine business and habitual support. A number of contingency contract programs, such as vendor-managed inventory (VMI), corporate exigency, stock rotation, and PV surge, provide access to additional materiel to meet contingency requirements. These are funded variously by the Services or by DLA, depending upon the program and availability of funds. The commercial nature of the commodity—particularly the lack of standard, commercially recognized product identification—and the changing nature of requirements (from advances in medical products and practices and the Services' unique mission needs) contribute to the complexity of ensuring that materiel is available in the distribution system to meet wartime requirements.

Joint doctrine specifies that SIMLM becomes operational on D+60. However, SIMLMs are not fully integrated with the Combatant Commanders planning process and do not have a clear view of the requirements. Therefore, SIMLMs are not resourced to rapidly elevate materiel before D+60. These centers don't have access to the full range of contingency contracts. When available, the OCONUS distribution centers provide support to joint customers during contingency operations. Challenges and risks for the distribution center increase when expanding to meet the requirements of a major theater war and establishing SIMLM support inside a theater using deployable medical logistics capabilities.

To-Be Model

Changes to the distribution process are predominantly in the management of information, application of resources to meet Combatant Commander requirements, and development of formal agreements to tailor Class VIII distribution strategies to the demands of each Combatant Commander's theater. The primary change is the designation of an EA to orchestrate and provide overall accountability for the performance of all Class VIII supply chain activities.

The EA concept also incorporates emerging concepts for managing and accomplishing end-to-end distribution, such as “reach operations” and “combat configured loads,” as well as the incorporation of packaging and containerization of sustainment materiel to facilitate transportation and handling. These concepts and enablers improve the agility of Class VIII distribution and enable Class VIII support to be provided with the smallest possible logistics footprint.

In a to-be model, the EA and its theater LAs engage in synchronized planning and execution to orchestrate a theater distribution system. The system’s design focuses on end-to-end distribution support of the Combatant Command requirements, including allocation and movement of operational inventories, prepositioned surge and sustainment stocks, and commercially based materiel to fulfill requirements. The EA is also responsible for managing Class VIII total asset visibility of assets during end-to-end distribution.

During war or contingencies, the EA (working with Combatant Commands, USTRANSCOM, and LAs) prioritizes movement of materiel and best transportation nodes for maximum efficiency in delivering Class VIII products to theater. With the LA, the EA coordinates with the combat commander and Service components to help ensure expediters are located at transshipment networks and provide contractor logistics support where needed.

As an EA for Class VIII, DLA is involved more actively in the end-to-end distribution process by formally collaborating with headquarter commands, employing LAs to develop theater distribution requirements and tying into other support agencies to ensure asset visibility during the delivery phase of Class VIII support. Distribution systems operating in peacetime participate in Combatant Command exercises to ensure contingency effectiveness.

FINANCIAL STRUCTURE

The financial structure for management of the Class VIII supply chain includes the financial resources necessary to buy, maintain, and distribute inventory (or access to inventory) from commercial sources to the end customer. Within the DOD, it also includes the application of financial resources to assure access to materiel when and where needed to meet operational requirements of Combatant Commanders for wartime, homeland defense, or other contingency operations. The financial structure is framed by policies that establish responsibilities for materiel readiness and by the automated systems used to perform financial inventory accounting.

The financial structure has significant impact on the ability of the supply chain to rapidly increase capability as well as to efficiently reallocate materiel that is on hand or in-transit in response to changes in operational requirements. Service ownership of sustainment materiel, for example, limits ability to preposition or to rapidly establish sustainment inventories that can be used to meet joint medical requirements, and forces logistics planning for Class VIII sustainment into separate Service channels.

Executive Agency provides an opportunity to determine requirements and make available sustainment materiel to support a Joint Health Service System within a theater, reducing redundancy and providing flexibility to meet requirements across Service lines.

As Is	To Be
Services program, fund, and acquire materiel required to 'outfit' deploying units to meet full operational capability. Services finance customer level inventories for medical treatment facilities and deployable units. Services (less Army DWWCF sites) finance inventories for retail level supply operations using either individual Service stock or operating funds or DHP operating funds	These Service responsibilities remain the same.
Services own and manage surge and sustainment materiel.	EA will finance and own surge and sustainment materiel managed by theater Lead Agents.

Multiple financial transactions as materiel is passed from DLA through Services' retail level activities or units to ultimate customers.	Release and issue of contingency materiel is streamlined by a single financial transaction generated at point of sale from DWWCF to customer.
Services individually finance Class VIII materiel required for sustainment of deployable units through D+60.	EA will finance Class VIII materiel required to support Combatant Commander, beginning with initial Class VIII sustainment operations as specified in the OPLAN. EA, LA, and Service components will participate in development of each OPLAN
Services individually finance the maintenance of prepositioned Class VIII sustainment materiel, to include facilities, equipment and care of supplies in storage (COSIS).	EA will finance the maintenance of its prepositioned Class VIII sustainment materiel. Designated Service Lead Agents, pursuant to specific CONOPS and MOA among the EA, Combatant Command, and LA, may perform custodial management and COSIS.

"As-Is" Process

Financial responsibilities for Class VIII supply chain activities are divided across the DOD. In general, the DLA finances vendor payment through major acquisition programs such as Prime Vendor and finances DLA owned inventories. The Services reimburse the DLA when materiel is received either by a retail level supply operation, where it is held in Service-financed inventory until it issued to the ultimate customer. The Army is a major exception, with its major retail Class VIII supply activities operating within the DWWCF pursuant to a Memorandum of Agreement among the Army, the USA Medical Command, and the DLA signed in 1999. DWWCF ownership of Army inventories is currently limited to retail supply operations in institutional MTFs and at Army theater distribution centers in Europe and Korea.

Each Service funds medical materiel required to outfit and maintain initial unit stocks, and plans for Class VIII sustainment of their respective units through the first 60 days of any contingency operation. Each Service generally owns some quantity of materiel to meet the earliest sustainment requirements, whether stored in CONUS, overseas or afloat, but rarely can meet its full sustainment requirement. Sustainment inventories that are managed by deployable medical logistics units are financed by each logistics unit's parent Service, even when they are providing SIMLM support to joint medical operations.

The DLA finances DLA owned depot inventories, to include those held by the Army theater distribution centers in Europe and Korea. DLA-owned materiel passes to Service ownership when issued to an ultimate customer or to a Service medical logistics unit engaged in supporting theater distribution. Operating costs are included in the price charged by DLA at the time of sale.

All Services and the DLA finance various commercially based contingency programs in order to minimize financial losses through expiration of potency dated materiel, and to defer financial liabilities until materiel is actually required. The Services use to varying degrees Prime Vendor Surge and Vendor Managed Inventory (VMI) contracts both for initial outfitting and sustainment programs. The DLA also finances and manages various contingency programs to assure availability of specific Class VIII items to meet the contingency demands of the Services. These programs include various vaccines of military significance and pharmaceuticals that have very limited peacetime use as well as some specific product groups that have particularly broad requirements such as suture and bandages.

There is no current program or initiative that allows DLA ownership of Class VIII materiel for sustainment operations to be either pre-positioned inside a potential theater of operations, or to be held and managed by deployable medical logistics units; therefore, there is no financial structure to support EA ownership of end-to-end supply chain activities.

"To-Be" Model

The financial structure under an Executive Agency would provide EA ownership of all Class VIII sustainment materiel on hand and in-transit from commercial sources through the distribution system until issued to the ultimate customer inside the Combatant Commander's theater of operations. The Services would continue to be responsible for fully outfitting units, to include management of prepositioned unit sets and preparing them for deployment with all supplies and equipment necessary to establish initial operating capability and sustain these units until a theater LA is fully operational. The Executive Agent applies its resources to provide sustainment materiel in collaboration with the Service lead agent designated to provide physical distribution of these stocks within the theater. Operating costs are included in the price charged by DLA at the time of sale.

A memorandum of agreement (MOA) with the Lead Agent will also specify responsibilities for storage and COSIS of prepositioned sustainment inventories where operational and/or geographic circumstances dictate their need. These responsibilities may be performed directly by the EA using DLA government or contract personnel, or by the LA under terms negotiated between the parties. Planning for sustainment operations would be an ongoing collaborative process involving the EA, the LA, and the Combatant Commander.

The "To Be" financial structure would allow sustainment inventories to be built as needed to support joint requirements in support of Combatant Commanders under the management of a single agency, and facilitate their allocation as required in support of operational requirements. It would also integrate financial processes and ownership of all Class VIII supply chain activities into a single enterprise that is consistent with the National Inventory Management, and provide a baseline for future initiatives under the Future Logistics Enterprise (FLE).

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PROGRAM MANAGEMENT

Requirements for providing Class VIII materiel for force sustainment, as well as for the accomplishment of multiple activities involved in assuring a rapidly responsive Class VIII supply chain for sustainment of combat operations, must be resourced through the DOD Planning, Programming, Budgeting and Execution System (PPBES). In effect, the program to ensure sufficient contingency medical materiel must be in DoD's Program Objective Memorandum and Five Year Defense Program. Development, submission and articulation of the contingency medical materiel POM requirement is a key responsibility for the Executive Agent.

Building an effective program for contingency medical materiel is a complex process that requires understanding of several factors to include:

- Comprehensive understanding of Combatant Command's requirements, capabilities, and limitations
- Medical materiel industry structure and responsiveness to contingency materiel requirements
- Identification of potential medical materiel industry partners, marketplace presence, depth and breadth of capability, physical distribution network, overseas distribution, manufacturing capacity
- Commercial asset visibility and methods to analyze potential availability of materiel
- Clinical perspective and validation of medical materiel requirements, i.e., ensuring the availability of the "right items"
- Identification of critical medical materiel items, usually vaccines, antidotes, antibiotics and other items that have special availability concerns
- Acquisition and contracting methods to attract and secure commercial-military partnerships for contingency materiel

- Economics of contingency materiel, applied through contracts that secure access to inventory versus actual inventory, or the appropriate mix, in order to extend investment and readiness value

- Federal interagency coordination to identify respective program requirements, define mutual support arrangements, and allocate critical items

- Critical Infrastructure Protection for essential, commercially based physical and cyber assets affecting supply availability from commercial sources

These factors necessitate a very carefully crafted program for contingency materiel. Executive Agent has potential to ensure a "one face to industry" approach that is vital in defining and securing DoD contingency medical materiel. Consolidation of investment resources is an important consideration to reinforce accomplishment of objectives in this essential component of the supply chain.

As Is	To Be
Services program for materiel required to modernize and 'outfit' operational units, to include contingency programs that provide 'just-in-time' access to materiel needed for initial outfitting. Services program for provision and maintenance of prepositioned unit sets	Service responsibility remain the same for initial outfitting and prepositioning unit sets.
Services program for the force structure necessary to provide deployable medical logistics capabilities in accordance with Service operational concepts and doctrine.	Service responsibility remain the same. except for Services that have designated Lead Agent responsibilities in support of Combatant Commanders. These Services will include those joint sustainment requirements in force structure modeling.
Services individually program for Class VIII materiel to meet OPLAN sustainment requirements through D+60 using a combination of prepositioned inventories and commercially-based contingency programs.	EA will program for Class VIII materiel to meet all joint OPLAN sustainment requirements using a combination of prepositioned inventories and commercially based contingency programs.
Services individually program for maintenance of prepositioned Class VIII sustainment materiel, to include facilities, equipment and COSIS.	EA will program for maintenance of prepositioned Class VIII sustainment materiel, to include facilities, equipment and COSIS.
There is no single agency responsible for programming Class VIII sustainment of	Executive Agent serves as single DOD point of contact for planning programming and budgeting for all supply chain compo-

joint medical requirements.	nents (Army, Navy, Air force, Marines) for Class VIII materiel sustainment.

"As-Is" Process

Responsibilities for programming and budgeting for Class VIII sustainment of combat operations is divided among the Services and the DLA. Each Service is responsible for programming sustainment requirements through D+60, while DLA is responsible for programming Obligation Authority (OA) necessary to support DWWCF operations as well as for acquisition of specific items of medical materiel that may be of strategic importance and limited national availability. Each Service uses a combination of on-hand materiel and commercially based contingency acquisition program to assure some availability of materiel to meet computed sustainment requirements.

Today, materiel for wartime sustainment is provided through three types of programs:

- Service war reserve materiel programs
- DLA Industrial Base Maintenance Program, commonly referred to as the "war stopper" initiative
- DLA program to support the MCF requirements, essentially a sub-element of the Industrial Base Maintenance Program

Service-owned Class VIII sustainment materiel for the first 60 days of operations is stored and managed in accordance with the Services operational concepts and doctrine. For Army, all inventories of secondary items (including Class VIII) for wartime sustainment are centrally managed and strategically located in CONUS and overseas locations. For Air Force and the Navy, Class VIII sustainment materiel is stored in CONUS in packages that are to be pushed to operational forces upon their deployment. For Marines, some quantity of materiel is afloat with combat forces, with additional packages in CONUS to be pushed.

Historically, Service funding of actual inventories to meet programmed sustainment requirements has fallen significantly short of computed requirements, leading to reliance upon commercial sources to meet sustainment requirements. This fact, in addition to the overall reduction in Class VIII inventories and infrastructure across the entire DOD as a result of Prime Vendor and other commercially based programs is a primary source of Combatant Commander concerns about wartime readiness of Class VIII, particularly for early operations.

Service program management is effected by Service level concepts for the physical distribution of sustainment supplies and their individual warfighting operational concepts.

- The Army has deployable medical logistics units (battalions and companies) as part of its force structure to support ground forces in land campaigns.

- The Navy relies upon CONUS and OCONUS support facilities for sustainment of fleet operations, and shipment of sustainment packages from CONUS to support fleet hospitals ashore.

- The Air Force expeditionary medical units often rely upon shipment of initial sustainment supplies directly from CONUS.

- Marines carry initial sustainment supplies with amphibious forces afloat, with follow-on shipment of sustainment packages directly from CONUS. Marines also have deployable medical logistics companies as part of its force structure to support forces ashore.

Joint doctrine requires the SIMLM to provide Class VIII support after D+60 for forces deployed on land; however, in practice, in-theater capabilities to manage line-item requisitioning and distribution of Class VIII as early as possible have been a Combatant Command and Service expectation in nearly every contingency operation. The capability to provide early SIMLM support to joint medical forces has been limited by two factors:

- Poorly defined SIMLM operational concepts, and lack of medical logistics force structure early in timed phased deployment schedule.

- The lack of any programmatic method to provide the designated SIMLM with initial Class VIII inventories to support joint requirements, either through established prepositioned stocks or contingency acquisition programs.

The EA concept provides the opportunity to address both of these limitations by providing a single agency to coordinate development of sustainment CONOPS that are understood and agreed upon by Combatant Commanders and Service Components, and supported by programmatic resources tailored to each supported OPLAN.

“To-Be” Model

The Class VIII EA programs through the DOD PPBES resources needed to meet joint Class VIII sustainment requirements so that end-to end distribution of Class

VIII materiel can begin immediately upon deployment of operational forces. Operational medical logistics force structure required to accomplish intra-theater management and distribution of Class VIII materiel to all supported operational forces would be programmed by the designated Service Lead Agent and deployed in accordance with Combatant Commander OPLANs.

Sustainment requirements would be passed by the Services to the EA, who compiles them into joint requirements that support each Combatant Commander's OPLAN. The EA then negotiates specific strategies with each Combatant Commander to meet those joint requirements, to include the designation of a theater Lead Agent to execute Class VIII management and distribution operations. These strategies are documented through formal CONOPS and MOAs, and may include a combination of strategically prepositioned and commercially based contingency programs. Both prepositioned inventories and contingency programs are programmed and funded by the EA.

Where the operational circumstances dictate the strategic prepositioning of Class VIII inventories within a theater, the EA will program for the provision and the sustainment of that materiel. Sustainment requirements may include the infrastructure for storage as well as the routine Care of Supplies in Storage (COSIS) and replacement of expiring materiel.

READINESS ASSESSMENT

During peacetime and war, we need information on medical materiel readiness. From commercial source to tactical unit, healthcare planners and providers require the information and tools to provide assessments of medical capabilities.

Key points in the as-is readiness assessment and the objectives in the to-be model are as follows:

As Is	To Be
Services develop separate metrics to measure Class VIII readiness and work through components to provide assessments to the Combatant Commanders.	The EA leads an enterprise effort to identify jointly approved measures to assess readiness of the Class VIII system.
Services compute requirements, track availability of materiel, and perform program management functions separately. The Global Status of Readiness and Training (GSORTS) currently provides the best integrated picture.	The EA orchestrates the essential components of the supply chain with emphasis on support to the Combatant Command. Information on capabilities is designed to present a complete materiel readiness picture.
To resolve deficiencies, Services consolidate requirements and shortfalls of each component, then work through Service headquarters. Each Service component reports to a Combatant Command.	The EA, in concert with the Combatant Commands and Services, evaluates OPLAN shortfalls to assess level of support. They identify and resolve deficiencies with one voice to the warfighter.
At deployment, Services compete to fill initial loads. Prioritization is not adequately managed to meet or adjust to time-phased force deployment data (TPFDD) changes.	The EA and its LAs execute supply chain support per Combatant Command priorities and direction in order to maximize readiness.
Readiness assessment information and tools, including MCF and Readiness Management Application (RMA), are not applied in the Combatant Command readiness assessment.	The EA implements use of information and tools to meet Combatant Command readiness assessment requirements.

Readiness assessment of the peacetime Class VIII system does not concern the Combatant Commander. The system's effective performance clearly mitigates concern. What is not clear is the ability to accurately assess wartime, homeland defense, or contingency readiness postures.

Currently, each military department separately assesses wartime readiness levels of Class VIII support. For instance, each Service monitors availability of contingency materiel, financial and program support to acquire materiel, and customer wait-time for critical items, emphasizing readiness assessments that are consistent with its Title X responsibilities. However, gaps in the current processes prevent development of the best joint picture of materiel readiness. GSORTS currently provides the best integrated picture, but the validity and reliability of the GSORTS for medical units is suspect and does not consolidate the Class VIII assessment by OPLAN nor individual theater. Readiness assessment information and tools, including the MCF and Readiness Management Application (RMA), are not applied in Combatant Command readiness assessment.

The Service components play a key role as a conduit between the Service and Combatant Command, providing information on their respective readiness. It is incumbent on the Combatant Command surgeon to consolidate this information to determine theater readiness. For the medical materiel commodity, with poor visibility and little integration, this becomes an inexact predictor. Further, little evidence exists that basic readiness information on commercial capability and surge provisions is reaching the Combatant Commands. It appears that this information is not consistently available or displayed to raise confidence in commercial capability.

Preparations for contingencies or wartime demand a considerable amount of additional information for a valid, reliable, and unified readiness assessment. The primary concern of the Combatant Commanders is that Class VIII support meets the TPFDD requirements. Consequently, the warfighter needs assurance that the commercial base can meet its surge commitment and that our distribution system can deliver the commodity on time.

To answer these concerns, the Services provide information and an assessment on medical materiel available to meet their individual Service requirements. The Service components provide reports on in-theater storage initiatives and the movement of goods into the theater to support their units. But the picture is misleading without one agency solely responsible for this assessment. The Combatant Commander needs a complete, joint picture to ensure supplies are properly allocated to meet mission requirements. The current process does not work effectively to provide this comprehensive snapshot.

The EA and its LAs have potential to consolidate and improve the readiness assessment information and profile provided to the Combatant Commander. A clear picture of contingency materiel in theater and that slated for early movement to theater can be a result of the EA and LA's roles in requirements definition, distribution, and program management. The EA can also mandate use of the MCF and RMA tools for a theater perspective. Key to this concept are effective perform-

ance-based logistics and establishing mutual incentives for the use of best available items.

The EA has increased visibility of all assets in the Class VIII supply chain. In concert with the Combatant Commands and Services, an EA and its LA are responsible for coordinating the supply chain to assess the Services' capabilities and the warfighter's requirements. In performing this analysis, it is possible to identify the overall materiel shortfalls and execute the resolution of deficiencies.

As owner of surge stocks and through orchestration of the distribution, financial, and prepositioning systems, the EA can support the Combatant Commander's prioritization process. An EA serves as a more effective steward of the limited medical materiel resources by centrally managing and reducing redundancy of the stocks. DLA is positioned to develop metrics to measure levels of compliance. DLA is also prepared to develop incentives to reduce the level of product variation. These incentives target the Services to products that the EA can obtain in the quantities and time frames required, ultimately leading to an increased readiness posture.

CONCLUSION

The Class VIII supply chain has continuously improved over several years. Today's medical materiel support substantially relies on commercial practices and commercially based support. The supply chain effectively supports the peacetime medical mission, but the same success has not been achieved in support of Combatant Commands and contingency operations. EA represents a unique opportunity to bridge these different levels of effectiveness. As the EA, DLA can meet the objectives of the Under Secretary for Defense and address the concerns of the Combatant Commanders through the following:

- *Establishing end-to-end (source-to-consumer) distribution with a single point of contact to orchestrate the supply chain*. The EA orchestrates end-to-end medical supply chain support. The acquisition and distribution system are restructured and refocused on the end user. Working with the Combatant Commands and the Services, the EA invests in the development of a common requirements generation tool and oversees the process to establish Class VIII demands. As the one face to industry—and working with its functional LAs (MLPS for development and integration of best business practices and JRCAB for best item available)—the EA sources the materiel and works the intertheater distribution process with USTRANSCOM. Within theater, the EA-designated LA, responsive to the Combatant Command, supports the tactical distribution to the end consumer.

- *Defining distribution roles and responsibilities in tactical situations.* The EA clarifies the intratheater distribution role. The designated theater LA plays a key role in the intratheater distribution network. Following the advice and guidance of the Combatant Commander, the LA designs a tactical distribution system responsive to the operational requirements of the field units. With asset visibility over Class VIII materiel and communication connectivity with the tactical units, the LA can be more responsive to the needs of the consumer. The Service components are responsible for establishing delivery routes to the field units.

- *Ensuring the same process in peacetime, contingency, and war, CONUS and OCONUS.* The EA improves the application of resources to support surge and sustainment requirements in the Combatant Commands.[2] An EA with the proper authority orchestrates essential strategic components into a consistent and responsive process. The commercial system remains

[2] Currently, two related systems are in place: a peacetime DoD-wide process, which successfully relies on PV next-day delivery, and a wartime system with four stovepiped processes competing for goods and lift.

the primary source of medical materiel. The EA extends the capability in a manner best designed to support the Combatant Commander. The key to a consistent process is the ability of the EA to increase commonality of requirements and establish effective performance agreements. To meet these requirements, the EA integrates enterprise capabilities to get materiel in place and deliver materiel as prescribed by the Combatant Commands.

- *Coordinating acquisition and employment of DoD items on the basis of common usage (two or more Services) leading to economical and effective application of resources.* An EA integrates the requirements management process, the clinical validation by its functional LA, and its program management efforts to procure the best available items for surge and sustainment. The EA leads DoD's coordination with other federal agencies to manage availability of critical medical materiel items. The EA uses Service input, its functional LA, and its access to commercial information and business intelligence to obtain the best possible sources to support DoD requirements.

- *Specifying roles, responsibilities, and authorities of the EA, supported customers, and other stakeholders.* To transform to an enterprise Class VIII supply chain, the EA needs the proper authority to

  - Directly plan and collaborate with Combatant Commands

  - Lead the surge and sustainment requirements process, coordinating with Services' medical logistics agencies and theater components

  - Delegate authority to theater LAs, integrate business practices with the MLPS, and implement clinical guidance from the JRCAB

  - Collaborate with federal agencies, allies, and host nations in the provision of Class VIII materiel

EA has the potential to markedly improve medical materiel support to the Combatant Commands and the Military Services. We recommend the EA form and lead an implementation group through a process similar to that used in the development of this CONOPS for effective implementation of the Class VIII EA. Near-term implementation of several aspects of the CONOPS is possible. The same knowledge and experience gained from developing this CONOPS would be used to develop efficient and effective plan of action and milestones.

Appendix A

Definitions

Contingency Materiel. Materiel available to support contingency operations and wartime requirements. Materiel is held in military or commercial storage location and released to medical units in accordance with prior plan or Combatant Command direction. Primarily used for surge, resupply, and sustainment, but may meet initial outfitting as prescribed in a support plan. War reserve materiel, PV surge, VMI, stock rotation materiel, and corporate exigency contracts are all examples of contingency materiel. (CONOPS defined.)

Customer Wait-Time. The total elapsed time between issuance of a customer order and satisfaction of that order. (JP 1-02 defined.)

End-to-End Distribution. The logistical process of distributing medical materiel and equipment from source to customer. (CONOPS defined.)

Executive Agent. The Head of a DoD Component to whom the Secretary of Defense or Deputy Secretary of Defense has assigned specific responsibilities, functions and authorities to provide defined levels of support for operational missions, or administrative or other designated activities that involve two or more of the DoD Components. (DoD Directive 5100.8)

Initial Outfitting. A Service-defined process that establishes, creates, and fields the initial medical material set or assemblage. (CONOPS defined.)

In-Transit Visibility. ITV is the capability to trace, from origin (depot or vendor) through nodes to destination, the identity, status, and location of DoD medical materiel and equipment during peace or war. (CONOPS defined.)

Lead Agent. Designated by the EA to coordinate or execute day-to-day conduct of an ongoing operation or function. The LA coordinates support requirements, ensures cohesion among the supported activities, and is responsible for implementing the EA's guidance and decisions. (CONOPS defined.)

Medical Contingency File. The principal management tool used by the Services, DSCP, and JRCAB to identify and manage medical contingency materiel requirements. (CONOPS defined.)

Medical Logistics Proponent Subcommittee (MLPS). The MLPS is the corporate body responsible for coordinating and directing medical logistics functional activity program management at the DoD Component level on behalf of the Assistant Secretary of Defense (Health Affairs) (ASD(HA)) and the Deputy Under Secretary of Defense (Logistics & Materiel Readiness) (DUSD (L&MR)). The MLPS membership is comprised of the three Service Medical Logistics Chiefs, an

ASD(HA) rep, and the Medical Director, DSCP as voting members. Advisory members are the DMLSS PM and representatives from the JRCAB and DUSD (L&MR).

Prepositioned Stock. Medical materiel amassed in peacetime to meet the increase in military requirements at the outbreak of contingency operations or war. (CONOPS defined.)

Readiness Management Application. The RMA system is DSCP's medical materiel readiness-related information capability. This system provides DSCP and the Services a broad view of industry and DoD medical materiel readiness. (CONOPS defined.)

Reach. The logistical process of forward-deployed units utilizing a distant supporting base and highly integrated transportation networks to meet materiel and equipment requirements. (CONOPS defined.)

Resupply. The act of replenishing stocks in order to maintain required levels of supply. (JP 1-02 defined.)

Single Integrated Medical Logistics Manager. Service component or agency, usually in a mature theater, that is designated by the Combatant Commander or subunified commander as the single in-theater manager for planning and execution of a specific common-user logistic (CUL) item or related items. SIMLMs are normally long term in nature, with responsibilities that include planning, coordination, control, and execution of a specific CUL function (or similar CUL functions) at the theater level, in both peacetime and during actual operations, within the parameters of Combatant Commander's directives. (JP 1-02 defined.)

Supply Chain. The linked activities associated with providing materiel from a raw materiel stage to an end user as a finished product. (JP 1-02 defined.)

Supply Chain Management. A cross-functional approach to procuring, producing, and delivering products and services to customers. The broad scope management scope includes subsuppliers, suppliers, internal information, and funds flow. (JP 1-02 defined.)

Surge. The rapid provision of materiel and equipment to fill shortages, meet unanticipated requirements, or achieve contingency stock levels in theater. This materiel is normally released from military or commercial storage locations within hours of notification. Commercially based surge agreements and contracts are managed by DSCP to meet requirements generated by Services and Combatant Commanders. (CONOPS defined.)

Sustainment. The provision of personnel, logistics, and other support required to maintain and prolong operations or combat until successful accomplishment or revision of the mission or of the national objective. (JP 1-02 defined.)

Time-Definite Delivery. The delivery of requested logistics support at a time and destination specified by the receiving activity. (JP 1-02 defined.)

Total Asset Visibility. The capability to provide users with timely and accurate information on location, movement, status, and identity of units, personnel, equipment, materiel, and supplies. It also includes the capability to act upon that information to improve overall performance of DoD logistics practices. (JP 1-02 defined.)

War Reserves. Stocks of materiel amassed in peacetime to meet the increase in military requirements consequent upon the outbreak of war. War reserves are intended to provide the interim support essential to sustain operations until resupply can be effected. (JP 1-02 defined.)

Appendix B
Abbreviations and Acronyms

AOR	Area of Responsibility
BSM	Business Systems Modernization
CONOPS	Concept of Operations
CONUS	Continental United States
COSIS	Care of supplies in storage
CSART	Combat Support Agency Review Team
CUL	Common-User Logistic
DHP	Defense Health Program
DLA	Defense Logistics Agency
DMLSS	Defense Medical Logistics Standard Support
DoD	Department of Defense
DSCP	Defense Supply Center Philadelphia
DTS	Defense Transportation System
DUSD (ALT)	Deputy Under SECDEF for Acquisition, Logistics and Technology
DWWCF	Defense Worldwide Working Capital Fund
EA	Executive Agent or Executive Agency
ERP	Enterprise Resource Planning
FLE	Future Logistics Enterprise
FLOW	Focused Logistics Wargame
GSORTS	Global Status of Readiness and Training
ITV	In-Transit Visibility

JMRR	Joint Monthly Readiness Review
JRCAB	Joint Readiness Clinical Advisory Board
JTTP	Joint Tactics, Techniques and Procedures
JWCA	Joint Warfighting Capabilities Assessment
LA	Lead Agent
MHS	Military Health System
MCF	Medical Contingency File
MLPS	Medical Logistics Proponent Subcommittee
MTF	Medical Treatment Facility
NSN	National Stock Number
OCONUS	Outside Continental United States
OASD (HA)	Office of the Assistant Secretary of Defense for Health Affairs
O & M	Operations and Maintenance
OPLAN	Operations Plan
OSD	Office of the Secretary of Defense
POM	Program Objective Memorandum
PV	Prime Vendor
RMA	Readiness Management Application
SIMLM	Single Integrated Medical Logistics Manager
TPFDD	Time-Phased Force Deployment Data
TMIP	Theater Medical Information Program
USAMMCE	United States Army Medical Materiel Center Europe
USTRANSCOM	United States Transportation Command
VMI	Vendor Managed Inventory

Appendix C
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